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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/413,984	10/07/1999	TOSHIYA KITAMURA	990630/HG	2673

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EXAMINER

DOVE, TRACY MAE

ART UNIT	PAPER NUMBER
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1745

DATE MAILED: 11/21/2001

8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.
09/413,984

Applicant(s)
Kitamura

Examiner
Tracy Dove

Art Unit
1745



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 4, 2001
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 2, 4-8, and 10-14 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-8, and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 20) ☐ Other: _____

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DETAILED ACTION

This Office Action is in response to the communication filed on 9/4/01. Applicant's arguments have been considered, but are not persuasive. Claims 1, 2, 4-8 and 10-14 are pending and remain rejected in view of the prior art of record. Claims 3 and 9 have been cancelled. This Action is made **FINAL**, as necessitated by amendment.

Specification

The substitute specification filed 9/4/01 has been entered. The objections to the specification are withdrawn.

Claim Objections

The objections to the claims have been withdrawn.

Claim Rejections - 35 USC § 112

All previous 35 U.S.C. 112, first and second paragraph, rejections have been withdrawn.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 14 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled

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✓ in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 14 recites "wherein the bismuth is added in an amount which is not less than 500 ppm". The specification provides enablement for 50-1000 ppm of added bismuth, Example 1 provides support for an endpoint of 500 ppm, however "not less than 500 ppm" includes values greater than 1000 ppm, which is not supported by the instant specification (see page 8).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 1, 2, 4-8 and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Glaeser, US 5,240,793.

See Office Action of 3/28/01 for the reasons for rejection.

Claims 1, 2, 6-8 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Urry, US 6,022,639.

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See Office Action of 3/28/01 for the reasons for rejection.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 5, 10, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Urry, US 6,022,639.

See Office Action of 3/28/01 for the reasons for rejection.

Regarding newly added claims 13 and 14, Urry teaches that the addition of bismuth to zinc alloy powder is known to reduce the leakage problems associated with hydrogen gas generation. Since bismuth is a known gassing inhibitor, one of skill would find it obvious to add the bismuth to the dry zinc alloy mixture. See col. 1, lines 20-24 and col. 4, lines 29-39.

Response to Arguments

Applicant's arguments filed 9/4/01 have been fully considered but they are not persuasive.

GLAESER

Applicant argues Glaeser teaches a zinc powder that contains Bi and/or In as an alloying element is useful as anode active material because of the decreased amount of hydrogen gas

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evolution, which is no more than a Comparative Example of the present invention. Applicant further argues the present invention relates to a combined effect of using Bi and/or In both as an alloying element and as an additive to the alloyed zinc already containing Bi and/or In.

Glaeser teaches a zinc powder for alkaline batteries and a process for preparing the zinc powder with a very low gas evolution in the alkaline electrolyte by *alloying or applying metal into, or onto zinc*. See col. 1, lines 8-11. Note is col. 1, lines 25-28 Glaeser states all conventional zinc powders for alkaline batteries, more specifically if low in or free from mercury, contain considerable amounts of lead. Therefore, the zinc powder (zinc alloyed with at least lead) may have a metal alloyed with, applied into or applied onto the zinc powder. Note the claimed invention does not require the zinc alloy (mixed with the Bi and/or In) to contain Bi and/or In.

Applicant argues that the zinc alloy of Glaeser contains lead, which is different from the present invention of an alloyed zinc free from mercury and also free from lead. Also, the amount of gas evolution in the present invention is much less than in the case of Glaeser.

The claimed invention does not recite an alloyed zinc free from mercury and also free from lead. Furthermore, the claims do not exclude the inclusion of lead in the zinc alloy. The amount of gas evolution is not relevant to the claimed invention.

URRY

Applicant argues Urry does not teach that by using a zinc alloy powder containing Bi and/or In as an alloy component, which powder having been dry mixed with a metallic powder of

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Bi and/or In, hydrogen gas evolution can be decreased much more than in the case when only said zinc alloy powder is used without using said metallic powder.

Examiner disagrees with Applicant analysis of the Urry reference. Urry teaches that the negative active material may be a zinc alloy such as zinc-bismuth-indium. In a preferred embodiment, indium can be coated on the alloys in an amount of 10-500 ppm. See col. 3, line 60-col. 4, line 6. Urry also teaches that other components such as gassing inhibitors may be added directly to the dry zinc mixture. Examples of gassing inhibitors can include indium salts. See col. 4, lines 29-39. Furthermore, the claimed invention does not require the zinc alloy (mixed with the Bi and/or In) to contain Bi and/or In.

Applicant argues an important feature of the present invention resides in that Bi and/or In is used as an alloy component in a zinc alloy powder and as a metallic powder to be added to said zinc alloy powder.

As noted above, the claimed invention does not require the zinc alloy (mixed with the Bi and/or In) to contain Bi and/or In.

Conclusion


Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tracy Dove whose telephone number is (703) 308-8821. The Examiner may normally be reached Monday, Wednesday and Thursday. My supervisor is Gabrielle Brouillette, who can be reached at (703) 308-0756. The Art Unit receptionist can be reached at (703) 308-0661 and the official fax number is (703) 305-5433.

November 9, 2001


CAROL CHANEY
PRIMARY EXAMINER